Applicant: GIESHOFF

Appl. Ser. No.: 10/556,643

Filing Date: December 11, 2006

Response to Non-Final Office Action

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended): An exhaust-gas purification system for the exhaust gases of an

internal combustion engine (2) of a motor-vehicle comprising an oxidation catalyst (7) and a

downstream particulate filter (5), wherein a converter shell (6) that is arranged in the exhaust-gas

system closely <u>coupled to</u> downstream of the <u>an</u> engine outlet and includes the <u>a first</u> oxidation

catalyst (7) that is not part of an underfloor area of the motor vehicle, and a hydrocarbon

adsorber (4) having up to 1g/L platinum on the hydrocarbon adsorber and the hydrocarbon

adsorber is arranged closely upstream of the particulate filter (5) in the underfloor area of the

motor vehicle and downstream of the converter shell (6) wherein (i) the particulate filter is a wall

flow filter, which is coated with [[an]] a second oxidation catalyst on an entry side thereof, and

(ii) the hydrocarbon adsorber and the wall flow filter are both disposed in one converter housing.

2. (Previously presented): The exhaust-gas purification system according to claim 1, wherein

a zeolitic coating on a honeycomb body is used as the hydrocarbon adsorber, which includes a

mixture of the zeolites ZSM5, DAY and comprises platinum at a concentration of 0.1g/L of

honeycomb body volume as a catalytically active component.

3. (Currently amended): The exhaust-gas purification system according to claim 2, wherein

the <u>first</u> oxidation catalyst includes a catalytically active coating of platinum-activated aluminum

oxide or aluminum silicate on a honeycomb body.

4. (Canceled)

The exhaust-gas purification system according to claim 1, wherein 5. (Previously presented):

the hydrocarbon adsorber comprises a storage capacity for hydrocarbons in the range between 1

and 50 g.

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6. (Currently amended): A method of operating the exhaust-gas purification system, of

claim 1, wherein during operating phases of the engine with exhaust-gas temperatures at the

engine outlet below 200 °C, the hydrocarbons emitted by the engine and not converted by the

<u>first</u> oxidation catalyst are adsorbed at the hydrocarbon adsorber and the emitted soot particles

are deposited on the particulate filter, while during operating phases of the engine with exhaust-

gas temperatures at the engine outlet of more than 200 °C, the emitted hydrocarbons are

converted by the <u>first</u> oxidation catalyst, and the particulate filter is regenerated from time to

time, wherein for initiating the regeneration, the exhaust-gas temperature is raised by engine

modifications at the site of the hydrocarbon adsorber above the desorption temperature of the

hydrocarbons and the stored hydrocarbons are desorbed and catalytically burned at the oxidation

second oxidation catalyst coating of the particulate filter to support the regeneration.

7. (Previously presented): The method according to claim 6, wherein the concentration of

hydrocarbons in the exhaust gas is raised by post-injecting hydrocarbons into the cylinders of the

internal combustion engine during the storage phases in order to increase the mass of stored

hydrocarbons.

8. (Canceled)